## *Remarks*

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-24 are pending in the application, with claims 1, 8, 13, and 20 being the independent claims. Claims 1, 8, 13-15, 17-21, 23, and 24 are sought to be amended. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

***Rejections under 35 U.S.C. § 103***

In section 3 of the final Office Action, the Examiner maintained the rejection of claims 1-24 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,901,049 to Chapman (hereinafter Chapman) in view of U.S. Patent No. 6,032,197 to Birdwell *et al.* (hereinafter Birdwell). Applicants respectfully traverse this rejection.

The final Office Action concedes that Chapman does not specifically teach transmitting or receiving a delta-encoded value for each non-redundant field in said second protocol header of said subsequent TCP protocol packet, wherein said delta-encoded value represents a change in value from a respective non-redundant field in said first protocol header of said first TCP protocol packet, as set forth in independent claims 1, 8, 13, and 20. Instead, the Examiner relies on Col. 1, lines 26-58, Col. 2, lines 19-32 and 48-56, and Col. 6, lines 1-9 of Birdwell to allegedly teach this feature.

The cited material at Col. 2, lines 19-32 and 48-56 of Birdwell merely describes forming a compressed header by removing non-changing header fields and rebuilding the

compressed header from an associated uncompressed header from which the compressed header was derived. However, nothing in Col. 2, lines 19-32 and 48-56 of Birdwell teaches or suggests transmitting or receiving a delta-encoded value for each non-redundant field, as set forth in independent claims 1, 8, 13, and 20.

The cited material at Col. 6, lines 1-9 of Birdwell merely states:

> As shown in FIGS. 4 and 5, the compression key 54 has a compression bit value 56 and a header index value 58. The compression bit value 56 identifies the packet as either a full-length data packet or a reduced-length data packet. In this example, the compression bit value is a one-bit compression flag that is a first binary value, such as a "0", when the data packet is full-length and a second binary value, such as a "1", when the data packet is reduced-length.

However, nothing in Col. 6, lines 1-9 of Birdwell teaches or suggests transmitting or receiving a delta-encoded value for each non-redundant field, as set forth in independent claims 1, 8, 13, and 20.

The cited material at Col. 1, lines 26-58 of Birdwell provides a discussion of Jacobson, V., "Compressing TCP/IP Headers," RFC 1144, *Network Working Group*, February 1990, pp. 1-43 (hereinafter Jacobson), which Applicants cited in an information disclosure statement filed July 3, 2002. As characterized by Birdwell, it initially appeared to the undersigned that Jacobson did not have anything to do with delta encoding. However, the undersigned has reviewed Jacobson and has determined that Jacobson does, in fact, teach a type of delta-encoding. Accordingly, the statement of the undersigned in the previous reply to the contrary is withdrawn. Nevertheless, Birdwell teaches away from transmitting or receiving a delta-encoded value for each non-redundant field in said second protocol header of said subsequent TCP protocol packet, as set forth in independent claims 1, 8, 13, and 20. For example, Birdwell states:

> ***The fields that are common to both the compressed and uncompressed headers are identical. That is, the fields themselves are not compressed.*** The 16-bit packet identification field, for example, is the same in both uncompressed headers and compressed headers. Compression is achieved by removing the non-changing header fields from the compressed header.
>
> Birdwell, Col. 5, lines 31-37 (*emphasis added*).

Moreover, the claimed invention is not merely directed to delta encoding techniques. Instead, the claimed invention is directed to using a dynamic delta encoding technique that extends beyond standard DOCSIS protocols in a DOCSIS system. Using such a technique, a cable modem is interoperable with conventional DOCSIS-compliant CMTS equipment that do not provide support for extended protocols. The cable modem achieves this end by determining whether it is communicating with a CMTS that supports extended protocols or with a CMTS that does not.

Accordingly, independent claim 1, as amended, recites determining whether the CMTS supports a dynamic delta encoding header suppression protocol, and responsive to a determination that the CMTS does support the dynamic delta encoding header suppression protocol, transmitting a delta-encoded value for each non-redundant field. Chapman, Birdwell, and Jacobson, alone or in any rational combination, do not teach or suggest these features. Thus, Applicants assert that independent claim 1, as amended, is patentable over Chapman, Birdwell, and Jacobson, alone or in any rational combination.

Independent claims 8, 13, and 20, all as amended, also distinguish over Chapman, Birdwell, and Jacobson, alone or in any rational combination, for reasons similar to those set forth above with respect to independent claim 1, as amended, and further in view of their own respective features.

Furthermore, claims 2-7, which depend from independent claim 1, claims 9-12, which depend from independent claim 8, claims 14-19, which depend from independent claim 13, and claims 21-24, which depend from independent claim 20, also distinguish over Chapman, Birdwell, and Jacobson, alone or in any rational combination, for reasons similar to those set forth above with respect to independent claim 1, as amended, and further in view of their own respective features.

Therefore, for at least the reasons set forth above, reconsideration and withdrawal of the rejection of claims 1-24 is respectfully requested.

## *Conclusion*

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

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